XXVIII.—*Preliminary Notices of Deep-Sea Fishes collected during the Voyage of H.M.S. 'Challenger.'* By Dr. Albert Günther, F.R.S., Keeper of the Zoological Department, British Museum.

[Continued from p. 187.]

Bathylagus, g. n. Salmonid.

Body oblong, compressed, covered with thin deciduous scales of moderate size. No phosphorescent organs. Head short, rather compressed, with thin membranaceous bones. Mouth very narrow, transverse, anterior; the margin of the upper jaw is formed by the intermaxillary and maxillary, which is very short, dilated. Teeth in the intermaxillary rudimentary; those of the lower jaw extremely small, implanted on the edge of the bone, forming a minute serrature; a series of minute teeth across the vomer and along the palatine. Eye very large. Pectoral and ventral fins developed; the latter seven-rayed and inserted opposite to the dorsal, at considerable distance from the pectoral. Dorsal fin in the middle of the length of the body; adipose fin small, not very far from the caudal. Anal fin of moderate length or many-rayed. Gill-opening narrowed, commencing opposite to the root of the pectoral, and extending across the isthmus, the gill-membranes being united and not attached to the isthmus. Gill-rakers lanceolate, rather long; gills small; pseudobranchiæ well developed.

Bathylagus antarcticus.

D. 10. A. 22.

The length of the head is nearly two ninths of the total (without caudal); the eye one half of the length of the head.

Antarctic, 1950 fathoms.

Bathylagus atlanticus.

D. 9. A. 13.

The length of the head is two ninths of the total (without caudal); the eye one half of the length of the head.

South Atlantic, 2040 fathoms.

Alepocephalus niger.

D. 21. A. 27.

Scales small. The length of the head is one third of the

total (without caudal); snout projecting beyond the mouth. Black.

North of Australia, 1400 fathoms.

PLATYTROCTES, g. n. Alepocephalid.

Body rather abbreviated, much compressed, and covered with small keeled scales. Mouth of moderate width; the maxillary and intermaxillary and mandible armed with a single series of small teeth. Palate smooth. Eye rather large. The dorsal and anal fins opposite to each other, on the tail, moderately long. Adipose fin none. Caudal forked. Pectoral small. Ventrals none. The humeral arch terminates in the middle of the chest in a long, projecting, acute spine. Gill-opening wide; six branchiostegals. Gills very narrow; pseudo-branchiæ present; gill-rakers long, lanceolate. Pyloric appendages rudimentary.

Platytroctes apus.

D. 18. A. 17.

The height of the body is more than one third of the total length (without caudal); the diameter of the eye one third of the length of the head. The maxillary does not extend to below the middle of the eye.

Mid Atlantic, 1500 fathoms.

BATHYTROCTES, g. n. Alepocephalid.

Body rather elongate, compressed, covered with scales of moderate size. Cleft of the mouth rather wide, the maxillary extending to below the middle of the large eye. Both intermaxillary and maxillary armed with a series of minute teeth, as is also the mandible. Vomer and palatine bones with similar teeth. No teeth on the tongue. Eye very large. Dorsal and anal fins moderately long, the former behind the ventrals. Adipose fin none. Caudal forked. Gills very narrow; pseudo-branchiæ present; gill-rakers long, lanceolate. Pyloric appendages in moderate number. Ova rather small.

Bathytroctes microlepis.

B. 7. D. 16. A. 17. V. 8. L. lat. ca. 70.

The maxillary extends to below the posterior third of the orbit.

South-east off Cape St. Vincent, 1090 fathoms.

Bathytroctes rostratus.

D. 20. A. 17. V. 9. L. lat. ca. 100.

The maxillary reaches to below the hind margin of the orbit; intermaxillary terminating in front in a short projection.

Off Pernambuco, 675 fathoms.

XENODERMICHTHYS, g. n. Alepocephalid.

Body rather elongate, compressed, without true scales; the skin is rather tough, finely longitudinally wrinkled, with numerous nodules, regularly arranged; minute, rudimentary, scale-like productions are imbedded in the skin, especially on the trunk. Mouth very small, with feeble jaws, and rudimentary teeth in the intermaxillary and mandible and a few in the maxillary. Palate toothless. Dorsal and anal fins equal in length. Caudal forked. Gill-opening wide, but not much extending above the level of the pectoral fin. Gills well developed, with long gill-rakers. Pseudo-branchiæ.

Xenodermichthys nodulosus.

D. 33. A. 33. P. 6. V. 5.

The height of the body is nearly one seventh of the total length (without caudal); the length of the head two elevenths. Eye of moderate size, its diameter being more than the width of the interorbital space. Uniform black.

South of Yeddo, 345 fathoms.

Halosaurus macrochir.

B. 12. D. 13. V. 10. P. 11–13. L. transv. 14/5.

Snout moderately produced, its præoral portion forming one third of its length. Eye rather small, one fourth of the postocular portion of the head, and one half of the width of the interorbital space. Maxillary reaching to the front margin of the eye. The length of the head is more than its distance from the root of the ventral, the origin of which is immediately before that of the dorsal. Pectoral fin with narrow base, very long, extending nearly to the root of the ventral. Scales of the lateral line larger than the others, each hidden in a pouch of black skin, with a phosphorescent organ at its base. These large scales are continued for some length on the tail, and cover the base of the anal fin, which, like the dorsal, is covered in its basal half with small scales.

Altantic, 1090 fathoms; and midway between Cape of Good Hope and Kerguelen's Land, 1375 fathoms.

Halosaurus rostratus.

B. 9. D. 10. V. 9–10. L. transv. 13/6.

The length of the head exceeds much the height of the body. The snout very much produced, spatulate, its præoral portion being more than one half its length. Eye of moderate size, its length being one third of the postocular portion of the head, and considerably less than the width of the interorbital space. Maxillary scarcely reaching the front margin of the eye. The length of the head equals its distance from the root of the ventral, which is nearly entirely situated before the dorsal. Nearly all the scales are lost: but some of the lateral line remain; they are much larger than the other scales; and on the tail, where the lateral line approaches the lower profile, these larger scales fill up all the space between the lateral line and the anal fin.

Mid Atlantic, 2750 fathoms.

Nemichthys infans.

Body much less elongate and eye much smaller than in *N. scolopacea*. Vent twice as distant from the root of the pectorals as is the latter from the eye.

Mid Atlantic, 2500 fathoms.

Cyema, g. n. Muræni d.

This genus is the type of a new group of Muræni dæ allied to the *Nemichthyina*. It combines the form of the snout of a *Nemichthys* with the soft short body of a *Leptocephalus*; but the gill-openings are very narrow and close together on the abdominal surface. Vent in about the middle of the length of the body; vertical fin well developed, confined to and surrounding the tail. Pectoral fins well developed. Eye very small.

Cyema atrum.

The cleft of the mouth extends backwards to the end of the head. Black.

Pacific and Antarctic, 1500 and 1800 fathoms.

XXIX.—*On the Mode of Development of the Tentacles in the Genus* Hydra. By M. C. Mereschkowsky.

[Plate XII.]

In my article on the new Hydroid *Monobrachium parasitum**

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